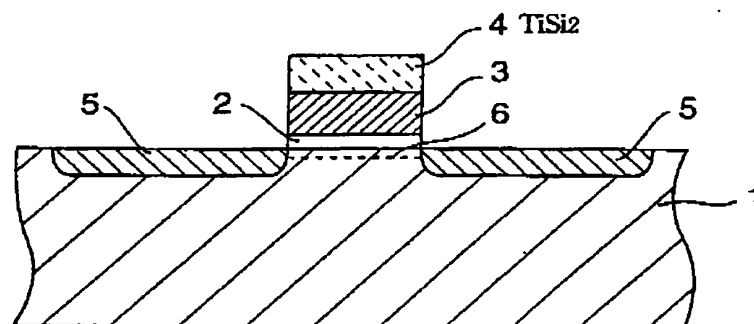
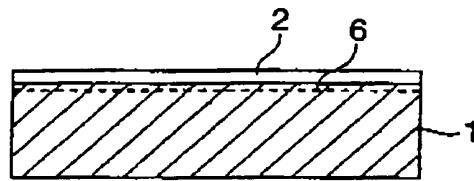


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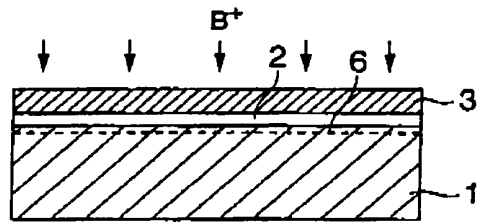
**FIG. 1**

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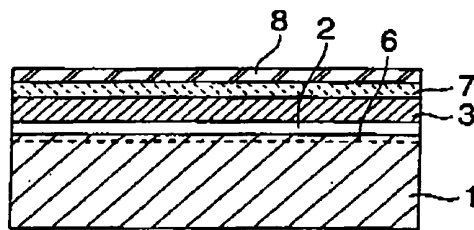
FIG. 2



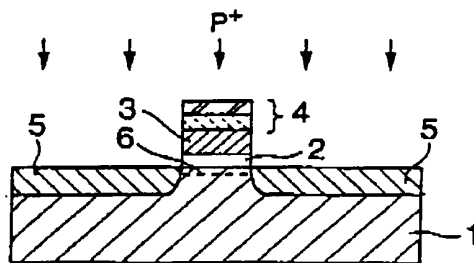
(a)



(b)



(c)



(d)

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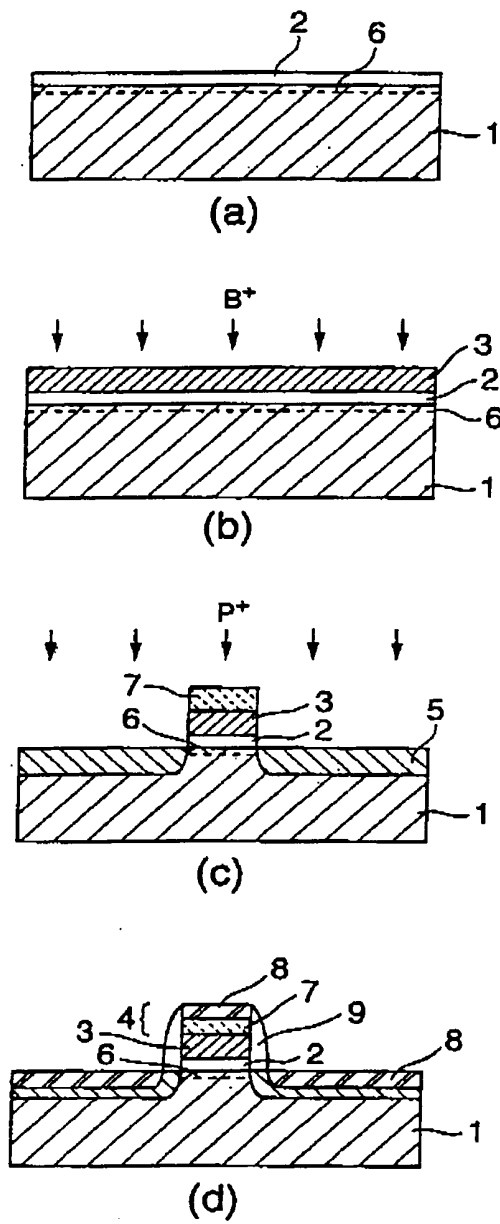
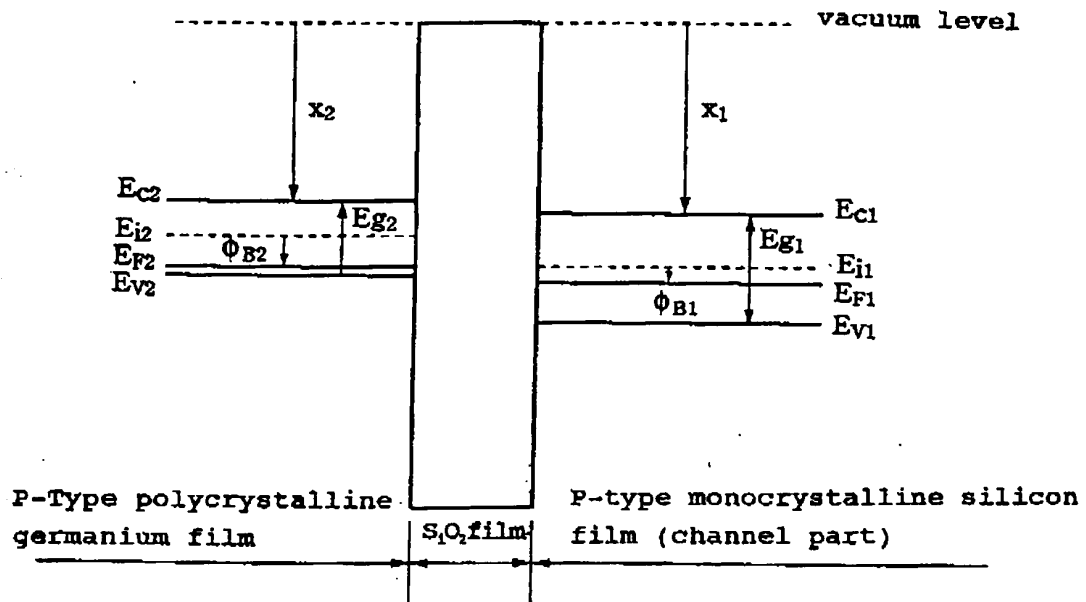
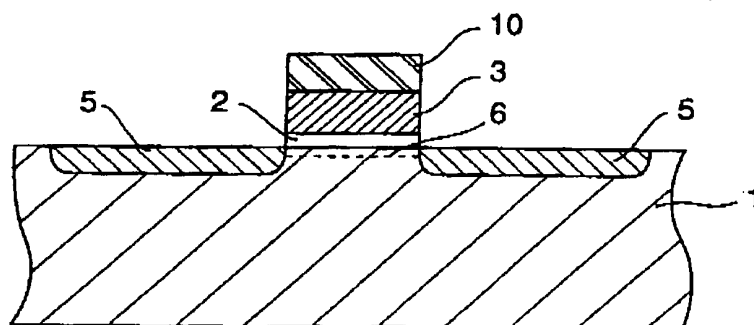
**FIG. 3**

FIG. 4



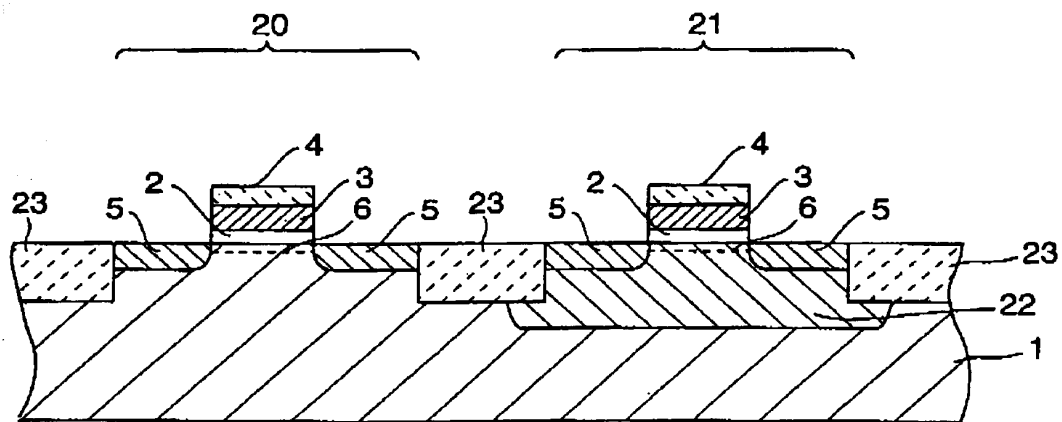
$E_C$  : conduction band edge  
 $E_V$  : valence band edge  
 $E_F$  : Fermi energy  
 $E_i$  : intrinsic mid gap energy  
 $x$  : electron affinity energy  
 $E_g$  : energy gap  
 $\phi_B$  :  $E_F - E_i$

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**FIG. 5**

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FIG. 6



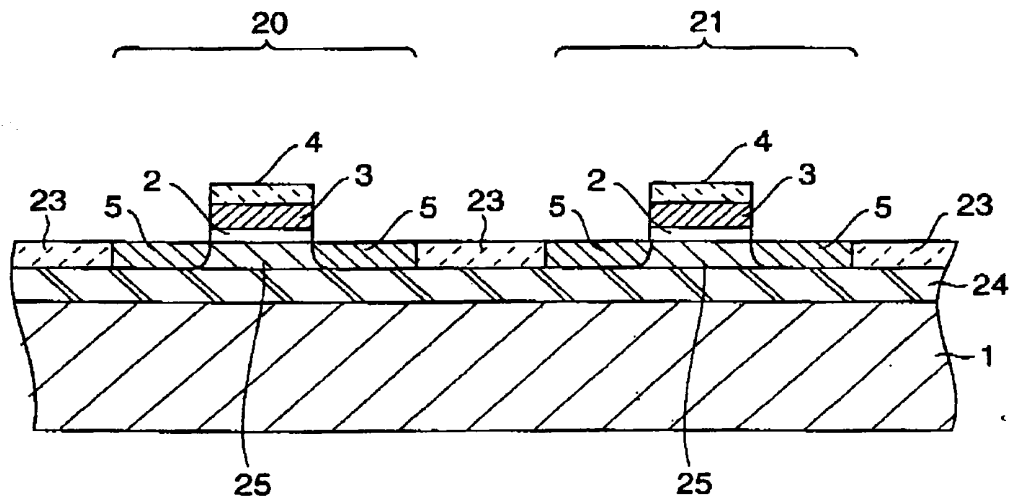
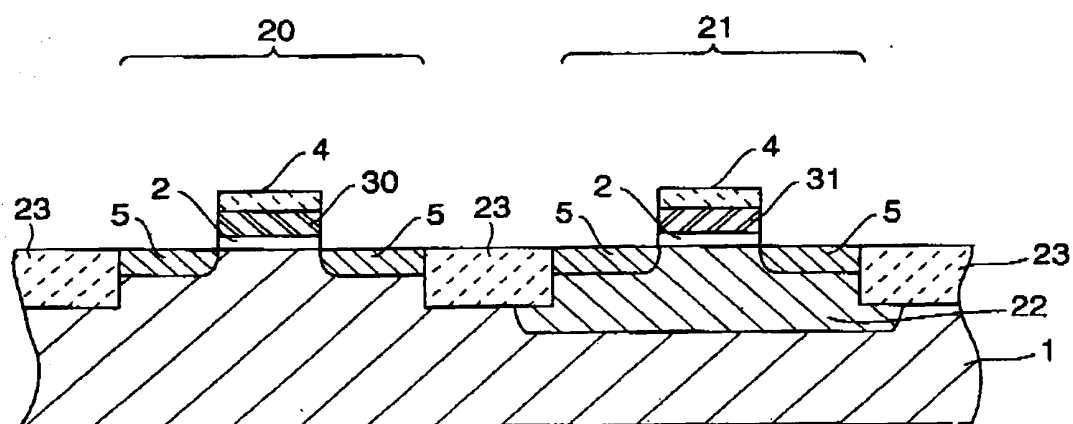
**FIG. 7**

FIG. 8





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FIG. 9

